



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/531,210	02/06/2006	Mats Gunnmarker	43315-216983	9108
26694	7590	03/17/2008	EXAMINER	
VENABLE LLP P.O. BOX 34385 WASHINGTON, DC 20043-9998				BONZO, BRYCE P
ART UNIT		PAPER NUMBER		
2113				
MAIL DATE		DELIVERY MODE		
03/17/2008		PAPER		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/531,210	GUNNMARKER ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	/Bryce P. Bonzo/	2113	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

1) Responsive to communication(s) filed on 14 April 2005.  
 2a) This action is **FINAL**.                            2b) This action is non-final.  
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

4) Claim(s) 1-8, 10 and 11 is/are pending in the application.  
 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
 5) Claim(s) 1-8 and 11 is/are allowed.  
 6) Claim(s) 10 is/are rejected.  
 7) Claim(s) \_\_\_\_\_ is/are objected to.  
 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

9) The specification is objected to by the Examiner.  
 10) The drawing(s) filed on 14 April 2005 is/are: a) accepted or b) objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) All    b) Some \* c) None of:  
 1. Certified copies of the priority documents have been received.  
 2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

1) Notice of References Cited (PTO-892)  
 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)  
 3) Information Disclosure Statement(s) (PTO/SB/08)  
 Paper No(s)/Mail Date 4/14/05.

4) Interview Summary (PTO-413)  
 Paper No(s)/Mail Date. \_\_\_\_\_.  
 5) Notice of Informal Patent Application  
 6) Other: \_\_\_\_\_.

## **NON-FINAL OFFICIAL ACTION**

### ***Status of the Claims***

Claims 1-8 and 11 are allowed.

Claim 10 is rejected under 35 USC §112, second paragraph.

Claim 9 has never been presented for examination.

### ***Rejections under 35 USC §112, second paragraph***

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claim 10 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 10 is replete with antecedent basis issues. Given the nature of the amendments prior to examination, it is unclear if Applicant intends for the claim to stand as Independent. Numerous elements are never introduced properly throughout the claim, and only have meaning when viewed in context of claim 1. Particularly, test application, application program, pre-defined result and CPU lack basis in claim 10. Further it is unclear if “the execution of an assembler instruction” of line 10 refers to the “execute repeatedly the test application” of line 5.

Should Applicant return the claim to depending on claim 1, the claim will become allowable. otherwise, Applicant must amend the claim to become internally consistent.

***Allowable Subject Matter***

Claims 1-8 and 11 are allowed. Applicant is reminded the claims are allowed as whole and any modification to the claims may jeopardize this indication of allowable subject matter. A marked up version of claim 1 showing those elements in combination with other claims as a whole which overcome the prior art.

1. A method to detect a fault in a CPU of an industrial controller *during on-line safety control of real world objects* the method comprising:

compiling an application program into assembler instructions, which application program was previously defined in a high level language intended for safety control,

compiling a test application into assembler instructions where the assembler instructions is a subset of the total number of assembler instructions available for the CPU, *which test application was previously defined in said high level language intended for safety control and the test application covers at least all language constructs used in the application program,*

downloading the application program and the test application to a central unit of an industrial controller,

executing repeatedly the test application in the industrial controller,

comparing repeatedly by means of a test module a result from the test application with the pre-defined result in the test module,

detecting a fault in the CPU as the result from the test application does not equal the pre-defined result stored in the test module and *the unexpected result of the test application is due to the execution of an assembler instruction of the test application,*

*aborting the execution of the application program wherein the application program is prohibited from executing the assembler instruction which otherwise would cause the application program to fail.*

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Bryce P. Bonzo whose telephone number is (571)272-3655. The examiner can normally be reached on Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Beausoliel can be reached on (571)272-3645. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Bryce P Bonzo/  
Primary Examiner  
Art Unit 2113